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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

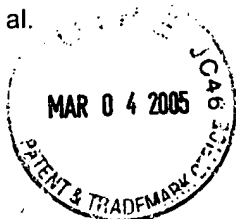
In re Application of:  
ANDERSON, William G. et al.

Examiner: Teresa J. Walberg

Application No:  
10/706,017

Art Unit: 3742

Filing Date:  
November 12, 2003



Title: HYBRID LOOP COOLING OF HIGH POWERED  
DEVICES

**CERTIFICATE OF MAILING UNDER 37 CFR 1.8**  
I, ANTHONY COLESANTI, REGISTRATION NO. 42,428, CERTIFY  
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BY Anthony Colesanti  
ANTHONY COLESANTI

BOX NON-FEE AMENDMENT  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

AMENDMENT

Sir:

Responsive to the Official Action mailed February 07, 2005, please amend the subject patent application as follows:

IN THE ABSTRACT OF THE DISCLOSURE:

Replace the present abstract of the disclosure with the following:

-- A heat transfer loop system includes a primary passive two-phase flow segment with an evaporator, a condenser and a liquid reservoir, and a secondary actively pumped liquid flow segment in which the liquid in the reservoir is drawn by a liquid pump into the evaporator, where a portion of the liquid is vaporized by the heat input and moves into the primary segment while the excess liquid is pumped back to the reservoir. The evaporator consists of a porous wick and one or more liquid arteries encased in the porous wick. The liquid arteries have porous walls to allow liquid phase working fluid to flow into the surrounding porous wick. The liquid arteries have porous walls to allow liquid phase working fluid to flow into the surrounding porous wick. The excess liquid continues to move through the arteries and eventually out of the evaporator and into the reservoir. The porous wick provides sufficient capillary force to separate the liquid inside the arteries and the vapor in the evaporator. --.